



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Goshen North Well Field Ground Water Contamination Investigation

Federal Programs Section – Site Investigation Program

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Background Information:

- A well field is the land above and surrounding wells that are placed in an underground water source (aquifer).
- The Goshen Water Department consists of the North Well Field and the Kercher Well Field. The Goshen Water Department supplies drinking water to a population of over 29,000 residents.
- The Goshen North Well Field is located in Goshen, Elkhart County, Indiana. It consists of six (6) active municipal ground water wells.
- In 2010, low levels of cis-1,2-dichloroethene (cis-1,2-DCE) were detected in the City of Goshen's drinking water supplied by the Goshen North Well Field.
- The City of Goshen's drinking water has been tested and has not exceeded the drinking water Maximum Contaminant Level (MCL) for cis-1,2-DCE. The MCL is a safe drinking water limit established by the United States Environmental Protection Agency (U.S. EPA) under the Safe Drinking Water Act.
- In response to the discovery of the contaminants, the Indiana Department of Environmental Management (IDEM) initiated an environmental investigation.
- Under a cooperative agreement with the U.S. EPA, IDEM's Site Investigation Program will investigate the ground water contamination discovered in the Goshen North Well Field. The objective of the investigation is to determine the nature of the ground water contamination, determine a potential source(s), and determine future actions.

Next Steps:

- In the summer of 2015, IDEM's Site Investigation Program will be conducting a ground water investigation in Goshen. IDEM will collect ground water samples from various locations in the sampling area in addition to the Goshen North Well Field municipal wells.
- IDEM staff may request access to private property in various locations to collect ground water from businesses or residences to aid in this investigation.
 - Property owners who are asked to aid in this investigation will be asked to sign a property access agreement.
 - The sampling will be done at no cost to the property owner.
 - Where monitoring wells are present on private property, ground water from these wells will be obtained utilizing a rotary low flow pump.
 - IDEM will provide the property owners with their ground water sampling results at no cost.

Environmental Impacts:

- Left unaddressed, the ground water contamination may become more widespread and pose a more significant threat in the future.
- Cis-1,2-DCE is a form of 1,2-dichloroethene (1,2-DCE), which is a volatile organic compound (VOC).
- Cis-1,2-DCE is a highly flammable, colorless liquid with a sharp, harsh odor. It is used to produce solvents and in chemical mixtures. Cis-1,2-DCE is also a breakdown product of trichloroethene

and tetrachloroethene, which is used in dry cleaning and industrial degreasing activities. There is a slight chance that cis-1,2-DCE will break down into vinyl chloride, a different chemical which is believed to be more toxic.

- The U.S. Department of Health and Human Services has determined that cis-1,2-DCE is “not classifiable as to its human carcinogenicity.” Studies show that animals that ingested extremely high doses of cis-1,2-DCE died, and lower doses caused effects on the blood, such as decreased numbers of red blood cells and effects on the liver.
- People can be exposed to cis-1,2-DCE from ingesting contaminated water used for drinking, cooking, and bathing (showering). A contaminated water supply can also impact indoor air quality in the home as cis-1,2-DCE gases can be released from water during bathing, cooking, and laundry activities.
- Along with this fact sheet, IDEM is distributing the *ToxFAQs™ for 1,2-Dichloroethene* fact sheet from the Agency for Toxic Substances and Disease Registry that describes 1,2-DCE and its effects in greater detail.

Additional Information:

- The public may direct questions and concerns regarding IDEM's environmental investigation in the Goshen area, including additional information on sampling results to date, environmental impacts of cis-1,2-DCE, and potential drinking water impacts, to Allie Praeuner, IDEM Project Manager, at (317) 234-8674; toll free at (800) 451-6027, ext. 4-8674; or by e-mail at apraeune@idem.IN.gov.
- Questions and concerns about health-related impacts should be directed to the Agency for Toxic Substances and Disease Registry (ATSDR) at (312) 886-1462 or to the Elkhart County Health Department at (574) 523-2283.
- For additional information on the Safe Drinking Water Act, visit U.S. EPA's website at www.epa.gov/safewater/sdwa/pdfs/fs_30ann_sdwa_web.pdf.
- For a copy of *ToxFAQs™ for 1,2-Dichloroethene*, visit the ATSDR website at <http://www.atsdr.cdc.gov/toxfaqs/tfacts87.pdf>.
- For information about IDEM's Site Investigation Program, visit IDEM's website at www.idem.IN.gov/4143.htm.
- The news media may contact Barry Sneed, IDEM Public Information Officer, at (317) 232-8596; toll free at (800) 451-6027, ext. 2-8596; or by e-mail at bsneed@idem.IN.gov.